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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,793	02/23/2004	Yasufumi Hosokawa	118822	5522
25944	7590	09/20/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			CASAREGOLA, LOUIS J	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/782,793	Applicant(s) HOSOKAWA ET AL.	
	Examiner Louis J. Casaregola	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-13 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Species Election

This application encompasses two species of the inventive subject matter as shown respectively in Figures 1 and 4. Pursuant to 35 USC 121, applicants are required for a complete response to (1) elect a single disclosed species and (2) list all claims readable on the elected species including any claims subsequently added (MPEP 809.02(a)).

Claim 1 appears to be generic.

Applicants are further advised that a mere argument alleging that a generic claim is allowable will not satisfy a species election requirement. For a complete response, applicants must elect a single species and list the claims readable on that species as set forth above.

Claim Rejections - 35 USC 112

Claims 11 and 12 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

References to "number of revolutions" is meaningless within the context of claims 11 and 12. It is unclear whether applicants are actually referring to the total number

of revolutions made by the turbine shaft or have simply misrepresented some other parameter such as shaft speed (revolutions per unit time).

Claim Rejections - 35 USC 102

Claims 1-5, 7-10 and 13 are rejected under 35 USC 102(b) as being anticipated by Pfefferle.

The claimed gas turbine engine reads on prior art turbine engines of the type disclosed by Pfefferle. Attention is called to the gas turbine in Pfefferle's Figure 1; note the air flow control system comprising variable vane row 20 located within air intake duct 16 upstream of compressor 10. Note also that the vanes are operated by control means 25 responsive to power demand or load (col. 14, lines 1-6). It is additionally pointed out that the claimed expression "so as to maintain an air-to-fuel ratio in said combustor within a proper range suited to suppress a discharge of an atmospheric pollutant" (claim 1, lines 11-13) is merely a desired result. The prior art system can be reasonably expected to achieve such a result to the same extent as the claimed system; see for example, column 1, lines 36-39 of Pfefferle, which indicate that Pfefferle's system is specifically operated in a manner that limits pollution.

With regard to claim 7, it is pointed out that the size and spacing of Pfefferle's vanes 20 makes them capable of totally closing the air intake path.

With respect to claim 8, it is also pointed out that Pfefferle's combustor 26 is a catalytic combustor; see catalyst element 38.

As concerns claims 9 and 10, it is additionally pointed out that Pfefferle's system is responsive catalyst exit temperature, as indicated by the presence of sensor 42, and this system also employs premixing, as indicated by the junction of air and fuel lines upstream of combustor 26 and column 12, line 27-29.

Claim Rejections - 35 USC 103

Claim 6 is rejected under 35 103(a) as being unpatentable over Pfefferle in view of Gulick.


The details of Pfefferle's vane actuator 41a are not disclosed, but it is well known in the art that vane actuators may comprise a rack and pinion mechanism as shown, for example, by Gulick; see elements 62, 63, etc. in Figure 1. It would have been obvious to add similar structure to Pfefferle's system in order to fill in the missing details necessary to complete the vane actuator apparatus.

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Additional References

Zerlauth and Nakanishi are cited as disclosing further examples of compressor systems having flow controls located in air ducts upstream of the compressors.

L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
571-273-8300 FAX
September 19, 2005


LOUIS J. CASAREGOLA
PRIMARY EXAMINER

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).